CLAIMS:

1. A ribbon curling device comprising in sequence delivery means (12) for delivering a supply of unstressed curlable ribbon, curling means (17) for the ribbon and drive means (31,32,33) for drawing the ribbon across said curling means (17).

2. A device according to Claim 1 wherein said curling means (17) comprises an upstanding curling blade.

3. A device according to Claim 1 or Claim 2 and further including means (18,18a,25,52,62) to vary the approach angle of ribbon to said curling means (17).

4. A device according to any preceding Claim wherein the approach angle of ribbon to said curling means (17) is less than 20°.

5. A device according to any preceding Claim and further including ribbon drag means upstream of said curling means.

6. A device according to Claim 5 wherein said drag means (42) are adjustable to vary the drag force imposed on ribbon in use.

7. A device according to Claim 5 or Claim 6 wherein said drag means (42) are adjustable to vary the approach angle of ribbon to said curling means.

8. A device according to any of Claims 5-7 wherein said drag means (42) are adjustable to vary the approach angle of ribbon to said drag means.

9. A device according to any of Claims 5-8 wherein

said drag means (52) comprise an arcuate surface for contact with ribbon on the convex side thereof.

10. A device according to Claim 9 wherein said drag means comprises a roller.

11. A device according to any of Claims 5-8 wherein said drag means comprise opposed members engageable with opposite faces of said ribbon, thereby to act as a brake on the ribbon.

12. A device according to any preceding Claim wherein said drive means comprise a train of three wheels (31,32,33) around which the ribbon follows a serpentine course in use.

13. A device according to Claim 12 wherein said wheels (31,32,33) have axes in line and are of similar diameter, the middle wheel (32) being driven and the outer wheels (31,33) being idlers.

14. A device according to Claim 12 or Claim 13 wherein said drive wheels (31,32,33) have a plurality of parallel tracks, each for engagement with a different ribbon strand.

15. A device according to any preceding Claim and further including ribbon shredding means (83) upstream of said drive means.

16. A device according to any of Claims 12-14 and further including ribbon shredding means (35) intermediate two of said wheels.

17. A device according to Claim 15 wherein said shredding means comprise upstanding blades of at least one

wheel.

18. A device according to any of Claims 14-16 wherein said shredding means (35) are movable into and out of engagement with the ribbon path.

19. A device according to any preceding Claim and further including ribbon guide means (81) intermediate said curling means and drive means, said guide means controlling the approach angle of ribbon to said drive means.

20. A device according to Claim 18 wherein said ribbon guide means (81) comprises a convex guide surface.

21. A device according to Claim 20 wherein said ribbon guide means (81) includes upstanding shredding blades (83).